

AMENDMENTS TO THE CLAIMS

Upon entry of the present amendment, the status of the claims will be as is shown below. This listing of claims replaces all previous versions and listings of claims in the present application.

Listing of Claims:

1. (Currently Amended) A quadrature modulation apparatus, comprising:

an in-phase correction signal outputter that generates an in-phase correction user signal by adding an in-phase user signal to an in-phase correction signal of a sinusoidal voltage;

an in-phase signal outputter that generates an in-phase offset user signal by adding an in-phase voltage signal to the in-phase correction user signal;

an in-phase signal converter that outputs an in-phase conversion signal by mixing an in-phase local signal of a predetermined local frequency with the in-phase offset user signal an in-phase correction user signal obtained by adding an in-phase user signal to an in-phase correction signal of a sinusoidal voltage;

a quadrature correction signal outputter that generates a quadrature correction user signal by adding a quadrature user signal to a quadrature correction signal, which is different in phase by approximately 90 degrees from the in-phase correction signal;

a quadrature signal outputter that generates a quadrature offset user signal by adding a quadrature voltage signal to the quadrature correction user signal;

a quadrature signal converter that outputs a quadrature conversion signal by

mixing a quadrature local signal, which is different in phase by approximately 90 degrees from the in-phase local signal, with the quadrature offset user signal ~~a quadrature correction user signal obtained by adding a quadrature user signal to a quadrature correction signal, which is different in phase by 90 degrees from the in-phase correction signal;~~

an adder that adds the in-phase conversion signal to the quadrature conversion signal;

an output voltage measurer that measures an output voltage of said adder; and

an error determiner that determines an error of the quadrature modulation based upon a measurement result of said output voltage measurer.

2. (Previously Presented) The quadrature modulation apparatus according to claim 1, wherein said error determiner measures the error of the quadrature modulation based upon a relationship of the output voltage of said adder with respect to the phase of the in-phase correction signal or the quadrature correction signal.

3. (Previously Presented) The quadrature modulation apparatus according to claim 1, wherein said error determiner determines an error relating to an amplitude, an orthogonality, and an offset of the in-phase user signal and the quadrature user signal.

4. (Cancelled)

5. (Currently Amended) A quadrature modulation method, comprising:
generating an in-phase correction user signal by adding an in-phase user signal to

an in-phase correction signal of a sinusoidal voltage;

generating an in-phase offset user signal by adding an in-phase voltage signal to the in-phase correction user signal;

outputting an in-phase conversion signal by mixing an in-phase local signal of a predetermined local frequency with the in-phase offset user signal ~~an in-phase correction user signal obtained by adding an in-phase user signal to an in-phase correction signal of a sinusoidal voltage;~~

generating a quadrature correction user signal by adding a quadrature user signal to a quadrature correction signal, which is different in phase by approximately 90 degrees from the in-phase correction signal;

generating a quadrature offset user signal by adding a quadrature voltage signal to the quadrature correction user signal;

outputting a quadrature conversion signal by mixing a quadrature local signal, which is different in phase by approximately 90 degrees from the in-phase local signal, with the quadrature offset user signal ~~a quadrature correction user signal obtained by adding a quadrature user signal to a quadrature correction signal, which is different in phase by 90 degrees from the in-phase correction signal;~~

adding the in-phase conversion signal to the quadrature conversion signal;

measuring an output voltage of the added signals; and

determining an error of the quadrature modulation based upon the measured output voltage.

6-10. (Cancelled)